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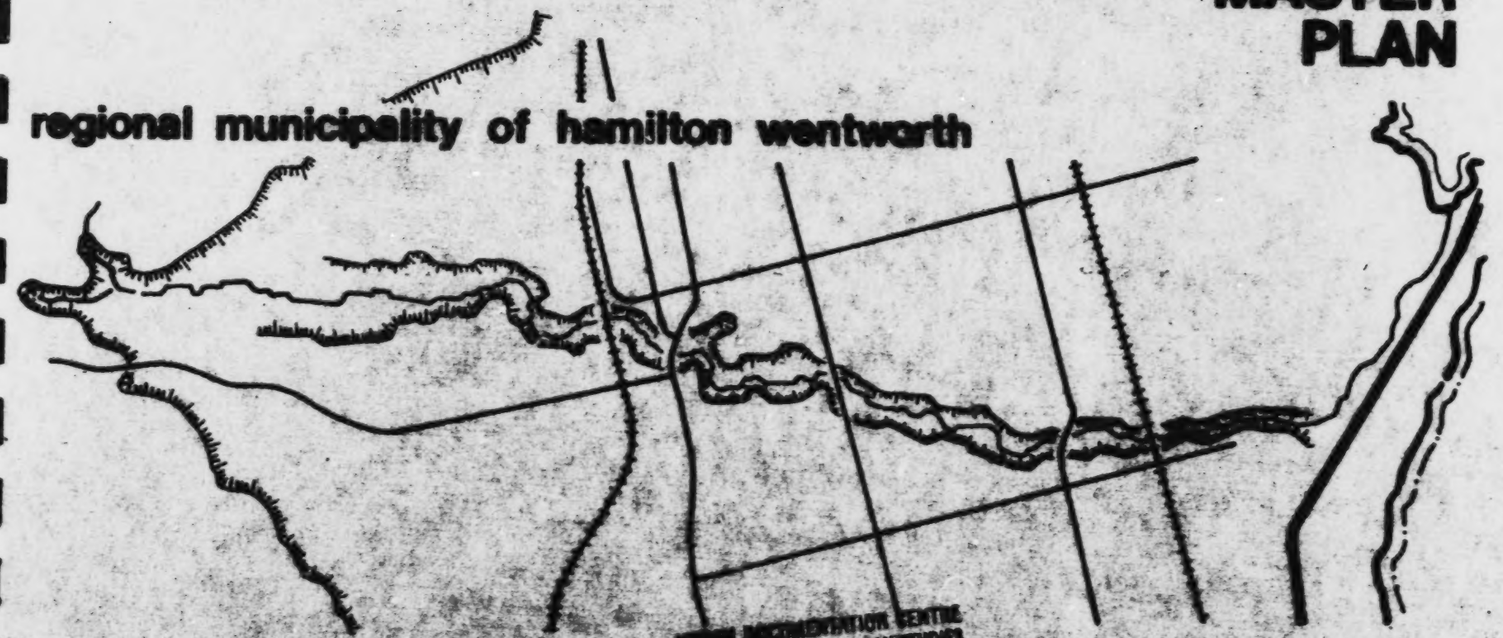
RED HILL CREEK VALLEY — PROPOSED RECREATION MASTER PLAN

regional municipality of hamilton wentworth



URBAN DOCUMENTATION CENTRE
RESEARCH FOR URBAN STUDIES
McMASTER UNIVERSITY
HAMILTON, ONTARIO

ecologistics limited

january 1981

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1.0 summary

This proposed recreation master plan has been developed to identify the potential recreational uses that could be achieved within the open spaces of the Red Hill Creek Valley, anticipating the introduction of the proposed six lane Red Hill Creek Roadway - that will traverse a portion of the valley.

The southern portion of the Red Hill Creek Valley from King Street, south to the escarpment has varied topography, a diversified vegetation cover and a relative remoteness to the surrounding urban area. This area is ideally suited for recreation development. In this section of the study area, the roadway corridor runs adjacent to the east side of the valley, thus, minimizing its impact on the large, relatively undisturbed area of open space. Here, a large area of passive parkland could be developed to take advantage of opportunities for hiking, jogging, walking, viewing nature (i.e. Albion Falls), picnicking, bicycling and cross-country skiing. The focus of this parkland in this proposal is a nature interpretive centre.

Surrounding this core of passive parkland could be nodes of more active open space development including existing and proposed: sports fields, ski hill, tot lots, jogging trails, pedestrian linkages and golf courses. These activity areas would fulfill the area's recreation demands and act as a buffer between the passive parkland and adjacent urban development.

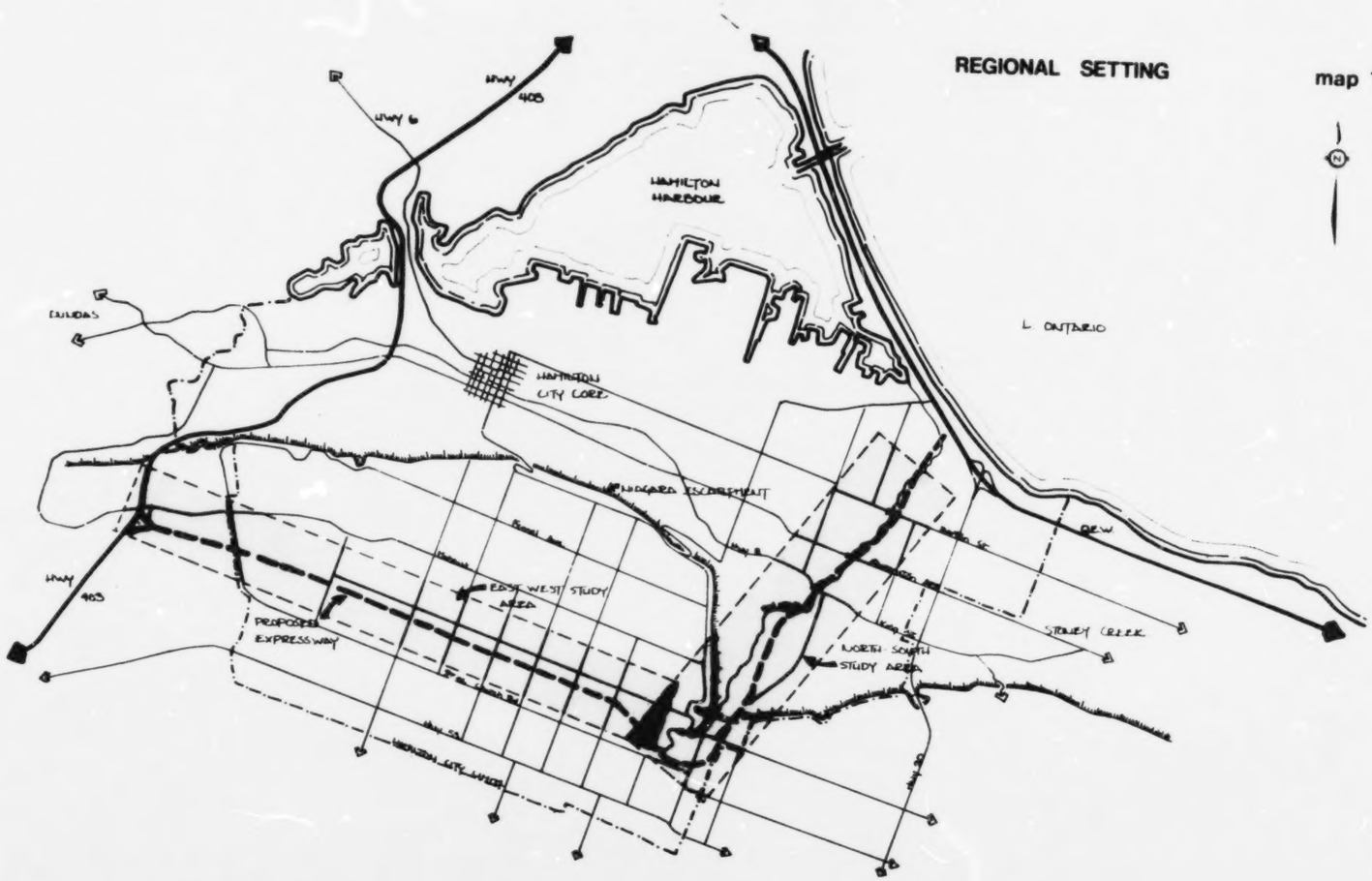
In the remaining portion of the study area, north of King Street, the impact of the roadway will limit any future open space development. Recreation development is not a high priority in this section of the valley because of its lower potential, and since the surrounding neighbourhoods have adequate open space reserves, except for the Corman and Kentley neighbourhoods immediately to the east of the valley. The open space requirements for these two neighbourhoods can be satisfied by acquiring land in locations more centrally oriented in the neighbourhoods rather than in the valley which has both access and flooding problems.

Ecologistics Limited worked closely with the engineering team to locate the roadway and implement mitigation measures that would minimize the impact of the roadway on existing and potential recreation activity areas, environmentally significant features, existing circulation networks, and other areas of potentially conflicting land use. This was achieved by considering potential conflicts in land use while reviewing the route selection, providing grade separations in appropriate locations, and implementing roadside landscaping to beautify and buffer the roadway in certain sensitive locations. The proposed master plan was also developed by working in close co-operation with regional engineering department, the regional planning department, City of Hamilton Parks Department and the City of Hamilton Recreation Department. An additional source of guidance included a public participation program which encouraged public comments that were reviewed and incorporated into the final plan where feasible.

As a result of the process of sensitive planning to minimize the impact of the proposed roadway, of the

76 acres of actively used recreational land in the study area, only 9 acres will be disturbed. One-third of potential lands would be affected. The proposed construction will complicate access and some existing linkages in the area will be disrupted. This master plan recommends suitable mitigation measures that provide vehicular and pedestrian access to the activity areas from the surrounding neighbourhoods. Also, the access between activity areas and adjacent neighbourhoods has been taken into account and appropriate connections are recommended.

This proposed master plan provides a comprehensive framework for recreation development in the Red Hill Creek Valley while taking into account the spatial, visual, noise and physical impact of the proposed roadway. Mitigating measures are suggested to minimize the impact of the roadway on surrounding development, both existing and proposed.



REGIONAL SETTING

map 1

2.0 introduction & context

The study area for this proposed recreation master plan involves two distinctly different sections (see Map 1). These include a north-south section, where the characteristic feature is the Red Hill Creek Valley and an east-west section which is a narrow, 200 foot wide corridor with little topographic relief, set aside for the expressway. The purpose of this study is to propose a recreation master plan for this study area. The focus of attention throughout the study is on the Red Hill Creek Valley, as it was determined early in the study process that the character and physical dimensions of the east-west section were not conducive to recreation development.

The study concentrates on the north-south section which involves the Red Hill Creek Valley, in particular the area between Albion Falls in the south to the C.N.R. tracks in the north.

2.1 PURPOSE OF THE PROPOSED MASTER PLAN

The intent of this master plan is to define the existing recreational use and to determine the future recreational potential of the study area which includes the narrow east-west corridor and the Red Hill Creek Valley lands. The recreational plan will take into consideration the proposed construction and alignment of the Red Hill Creek Roadway.

The proposed recreation master plan was developed through consideration of the following factors:

- the existing biophysical characteristics of the study area and their influence on existing and future recreation development;
- the cultural and historical features found within or influencing the study area;
- the existing recreational facilities and the use of these facilities;
- the future demand and potential for recreational development;
- the impact of the expressway on recreation development in the study area and measures to mitigate this impact.

2.2 LOCATION AND REGIONAL CONTEXT

The study area, comprised of the Red Hill Creek Valley and the east-west highway corridor, is located within the boundary of the City of Hamilton except for the extreme western end of the east-west corridor where it extends into the Town of Ancaster. This corridor creates a link between the Queen Elizabeth Way in the east and Highway 403 at the western end of Hamilton. This road link has been the focus of intensive study for the past three years during which time a full Environmental Assessment was undertaken.

The Red Hill Creek Valley forms a physical barrier running in a north-south direction between the Niagara Escarpment and Lake Ontario. The valley is straddled by Barton Street, Melvin Avenue, Queenston

Road and King Street as well as two railway lines, the C.N.R. and the T.H. & B. The creek crosses the Niagara Escarpment at Albion Falls beyond which it loses its impact as a physical barrier.

The east-west corridor is a swath of land approximately 200 feet wide extending from the Niagara Escarpment to Highway 403. The corridor is presently vacant land transected by the following major roads: Upper Paradise Road, Garth Street, West 5th Street, Upper James Street, Upper Wentworth Street, Upper Sherman Avenue, Upper Gage Avenue and Upper Ottawa Street.

3.0 site inventory & analysis

3.1 BIOPHYSICAL FEATURES

3.1.1 Physical and Biological Setting

The geographic area under consideration for the proposed master plan consists of four distinctive areas - each with its own characteristics and potentials. These are as follows (proceeding from south to north):

- The flat area above the escarpment consists of (relatively) low topographic relief, with a meandering water course and scattered blocks of trees separated by old field/grass communities. The Upper Ottawa Street landfill site is a major feature.

- The escarpment face and gorge of the Red Hill Creek have steep slopes that are heavily wooded. Scenic views and fast running water are notable features.

- The broad area of outwash materials north of the escarpment contains a varied topography, defined creek valley and extensive, intermixed plant communities.

- North of Greenhill, the valley becomes much narrower and is confined by valley walls and adjacent urban land uses. The valley bottom is of poorer soil drainage and the vegetation communities indicate a high degree of disturbance.

The characteristics of these four areas are a major determinant on the best recreation use of the valley. (See Figure 1 for representative cross sections.)

Map 2, Soil and Slope, identifies areas of hydrogeologic constraint, soil erosion hazard slopes and flood plain areas. These features are determining factors in the location of various recreation facilities within the study area.

Map 3, Vegetation, identified wooded areas, orchards and vineyards. The locations of these woody vegetation types influences the type of recreation pursuits most compatible in certain areas and the extent of natural buffers within the study area.

The physical and biological setting of the study area is discussed in detail in Phase IV, Environmental Evaluation Study (Ecologistics Limited, 1980).

3.1.2 Environmentally Significant Features

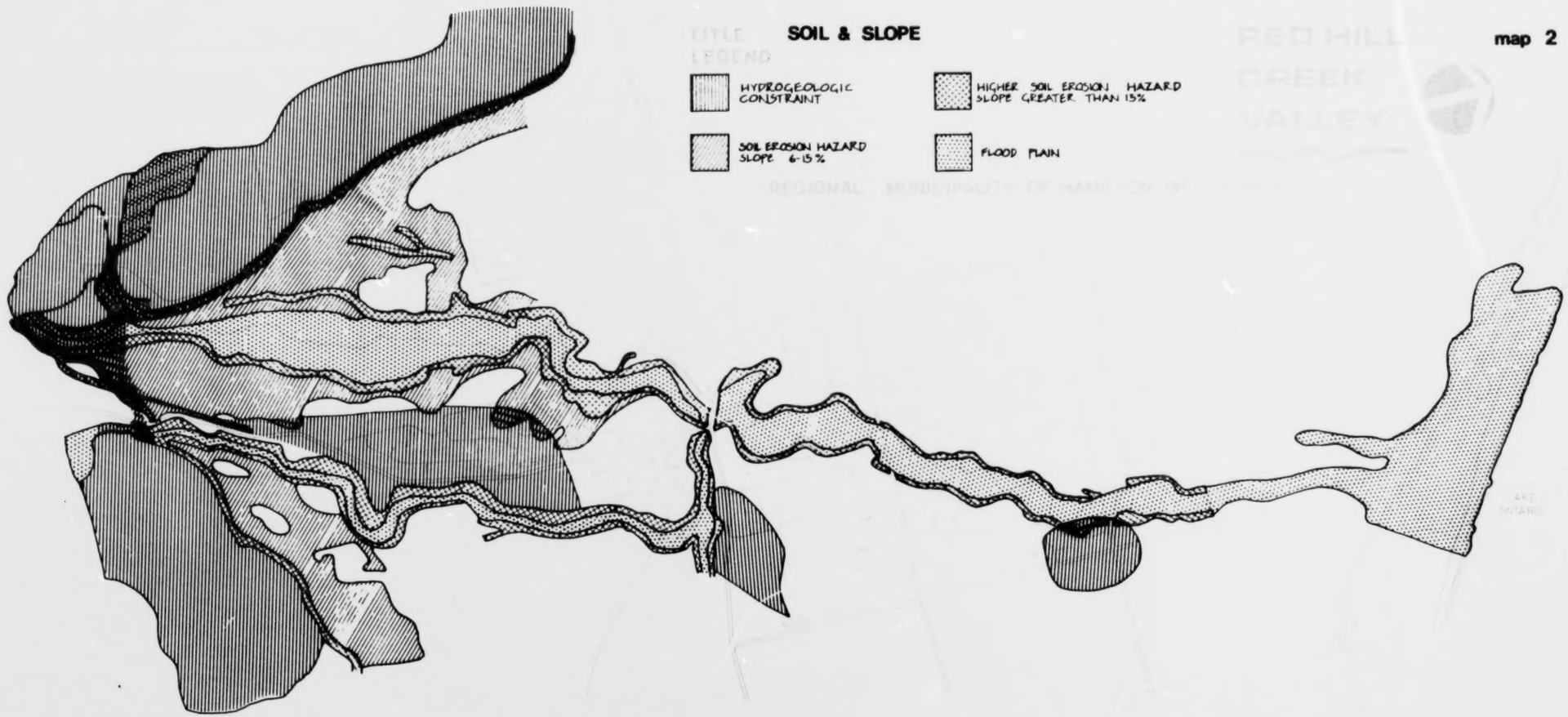
The Red Hill Creek Valley is designated as an environmentally sensitive area in the Region of Hamilton-Wentworth's Official Plan. The study area was found to contain fourteen specific environmentally significant features. All fourteen are located between the Upper Ottawa Street landfill site and Lake Ontario, they are listed by location starting from the south and proceeding towards Lake Ontario.

SOIL & SLOPE

map 2

LEGEND

- HYDROGEOLOGIC CONSTRAINT
- HIGHER SOIL EROSION HAZARD SLOPE GREATER THAN 15%
- SOIL EROSION HAZARD SLOPE 6-15%
- FLOOD PLAIN



VEGETATION

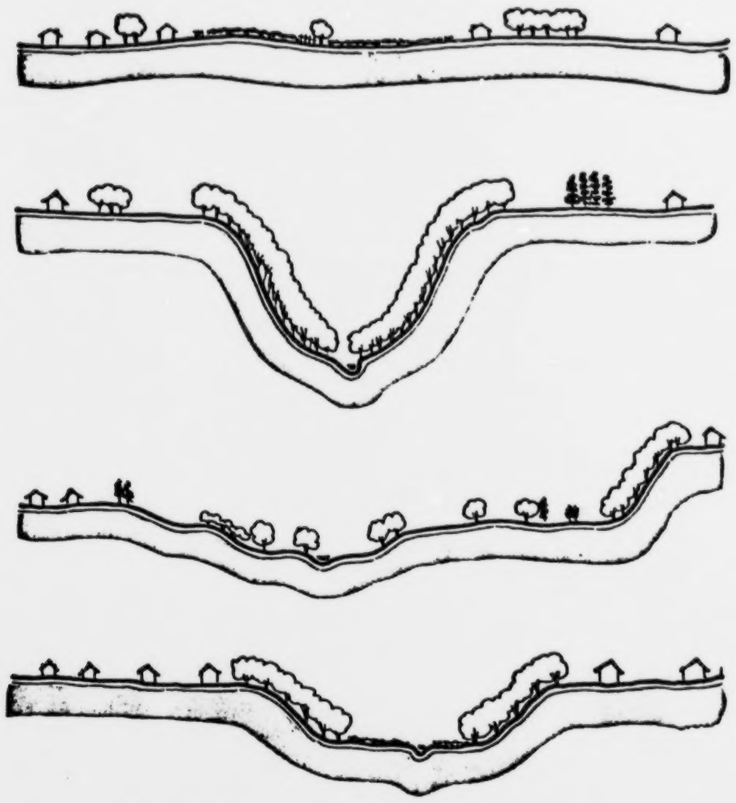
map 3

ORCHARD & VINEYARD

WOODLOT

RED HILL CREEK VALLEY

Figure 1. Physical Characteristics of the Study Area
(not to scale)



Flat area above escarpment

Red Hill Creek Valley at the
Niagara Escarpment

Broad outwash valley

Red Hill Creek Valley north
of Greenhill Avenue

1. Near the Upper Ottawa Street landfill site where the railway tracks and Red Hill Creek intersect: area of good habitat - belted kingfisher, gulls, western chorus frogs, groundhogs, three pair of cardinals, eastern meadowlark.

2. North of the Upper Ottawa Street landfill site: mixed diverse habitat supporting pheasant, western chorus frogs, habitat good for deer, woodcock, pheasant, squirrels, eastern bluebird and woodpeckers.

3. North of Albion Falls: nesting for short-eared owl.

4. Near Albion Falls: short-eared owl.

5. Near Mount Albion Village: nesting for long-eared owl.

6. Upper gorge: hardwood forest, unusual plants - green violets, small flowered cutleaf.

7. Escarpment at Mount Albion: flowering dogwood.

8. Red Hill Creek Valley at Greenhill Avenue: good variety of birds and wildlife in the hardwood forest on the valley side.

9. Floodplain between King Street and Queenston Road: floodplain flora and old field vegetation creates good habitat for a variety of birds.

10. Near King Street: unusual trees for the area - black walnut and sycamore.

11. Near Queenston Road: unusual plants for the area - honewort and cow parsnip.

12. Near Barton Street: unusual plants for the area - cow parsnip and water pennywort.

13. Between Barton Street and the C.N.R. tracks: small ponds along the west side of the creek create habitat not common elsewhere in the study area.

14. Queen Elizabeth Way: wetland cattail marsh supports diversity of fauna particularly birds.

The approximate locations of these environmentally significant features are identified on Map 4.

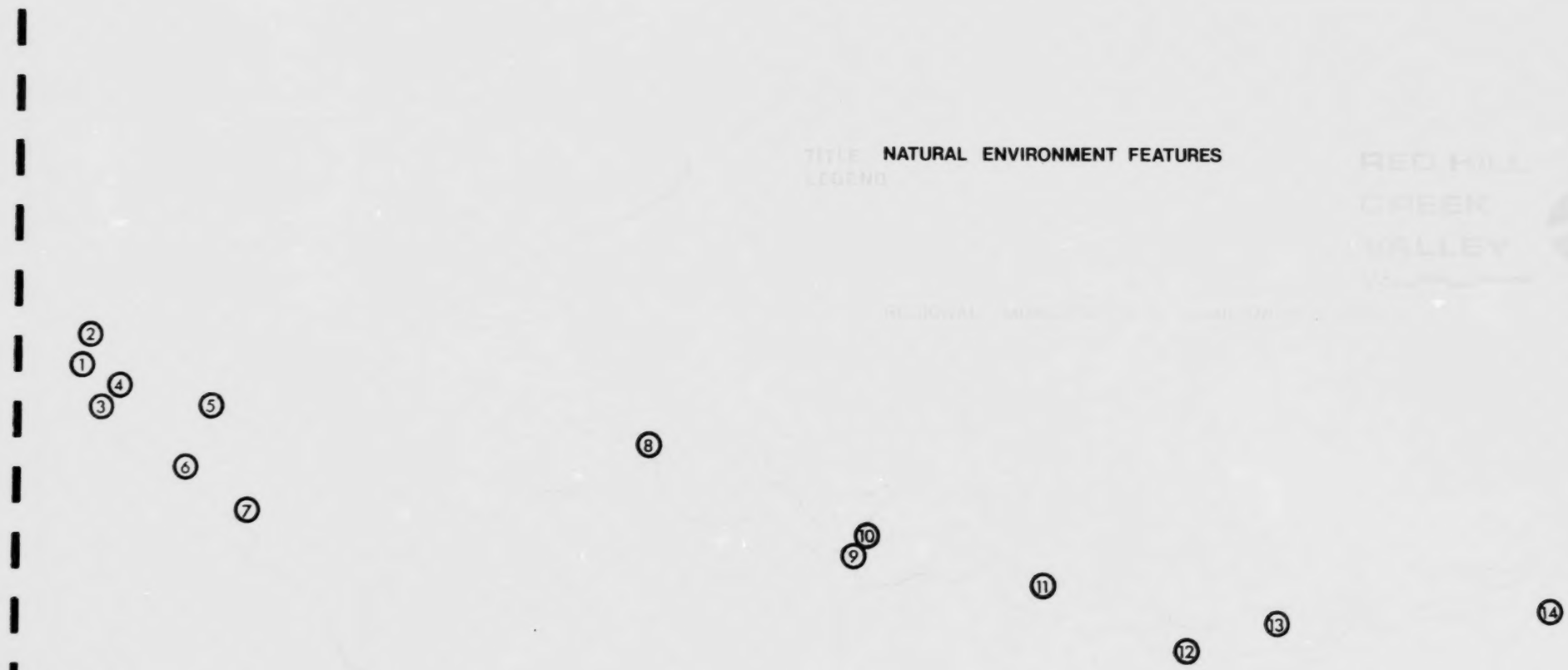
In the refinement of the road alignment, it was possible to avoid completely five of the fourteen features (3,4,5,6,8).

Features numberd 9, 11, 12 and 13 occur within the lower valley, from King Street north. They include pockets of diverse habitat, mixing wet depressions with lowland trees, supporting flora and fauna of interest. The road will consume most of the land in the lower valley. However, various interconnected pockets will continue to exist. Thus, the impact can be mitigated by conserving these pockets and providing new ones where possible. This would require a more detailed ecological design during final design and construction of the road. Since the natural features (particularly plants) are those of disturbed places (not sensitive), this task does not require a high degree of sophistication to execute.

Features number 7 and 10 are plant specimens of interest. Feature 12 includes an area of unusual showy dogwood. Final refinement of the road alignment and salvage transplanting can retain these plants in the area. Feature 10 includes several large trees (black walnut, sycamore). Transplanting is probably

NATURAL ENVIRONMENT FEATURES

map 4



too difficult. Thus, if in the final design, the trees cannot be retained, they will be lost.

Features 1, 2 and 14 are habitat areas of special interest. Feature number 2 will only be partly disturbed. Thus, the effect on it is only partial. Numbers 1 and 2 are a different matter though. Since they are directly in the right-of-way, retention is impossible. The effect on them will need to be accepted if the road is to proceed along the proposed alignment.

The proposed recreation master plan could utilize, without adversely affecting, the remaining features and could mitigate, if possible, road impacts.

3.2 CULTURAL/HISTORICAL FEATURES

3.2.1 Land Use

The study area is comprised of a corridor of predominantly undeveloped lands linking the Queen Elizabeth Way in the east end of Hamilton to Highway 403 in Ancaster. The land uses abutting this open space corridor are primarily urban in nature along the north-south portion of the route, whereas the east-west corridor passes through an area presently undergoing urban development.

Land use within the valley: The study area itself is mostly vacant land with the exception of a few areas of developed recreational land in the Red Hill Creek Valley. These include:

King's Forest Golf Course	180 acres
Active sports fields	76 acres

The remaining 440 acres of the Red Hill Creek Valley are undeveloped except for the occasional footpath, all terrain vehicles and dirt bike track.

The active sports areas found here include baseball diamonds, tennis courts, soccer and football fields, school palygrounds and the Rosedale Arena. The remainder of the valley with the exception of the King's Forest Golf Course is not maintained. In some areas, particularly the upper gorge, a pleasant environment is destroyed by garbage and adjoining development.

Adjacent land uses: As mentioned preivously the north-south section of the study area (the Red Hill Creek Valley) is surrounded by urban land. The adjacent land use is predominantly low density residential in character. The exceptions to this include an industrial area located between Barton Street and the Queen Elizabeth Way, several schools, and adjacent open space along the southern perimeter of the valley.

The east-west corridor is predominantly bordered by residential lands and open fields. The Official Plan indicates that most of the open fields will eventually be developed into residential subdivisions. A major shopping centre and a large park will be developed adjacent to the corridor at Upper Wentworth Street. The eastern end of the corridor passes beside the Upper Ottawa Street landfill site and Conservation Area property.

Map 5, Land Use, identifies the distribution and type of land uses surrounding the Red Hill Creek Valley.

TITLE **LAND USE**

LEGEND

OPEN SPACE

RESIDENTIAL

COMMERCIAL

INDUSTRIAL & UTILITIES

S SCHOOLS

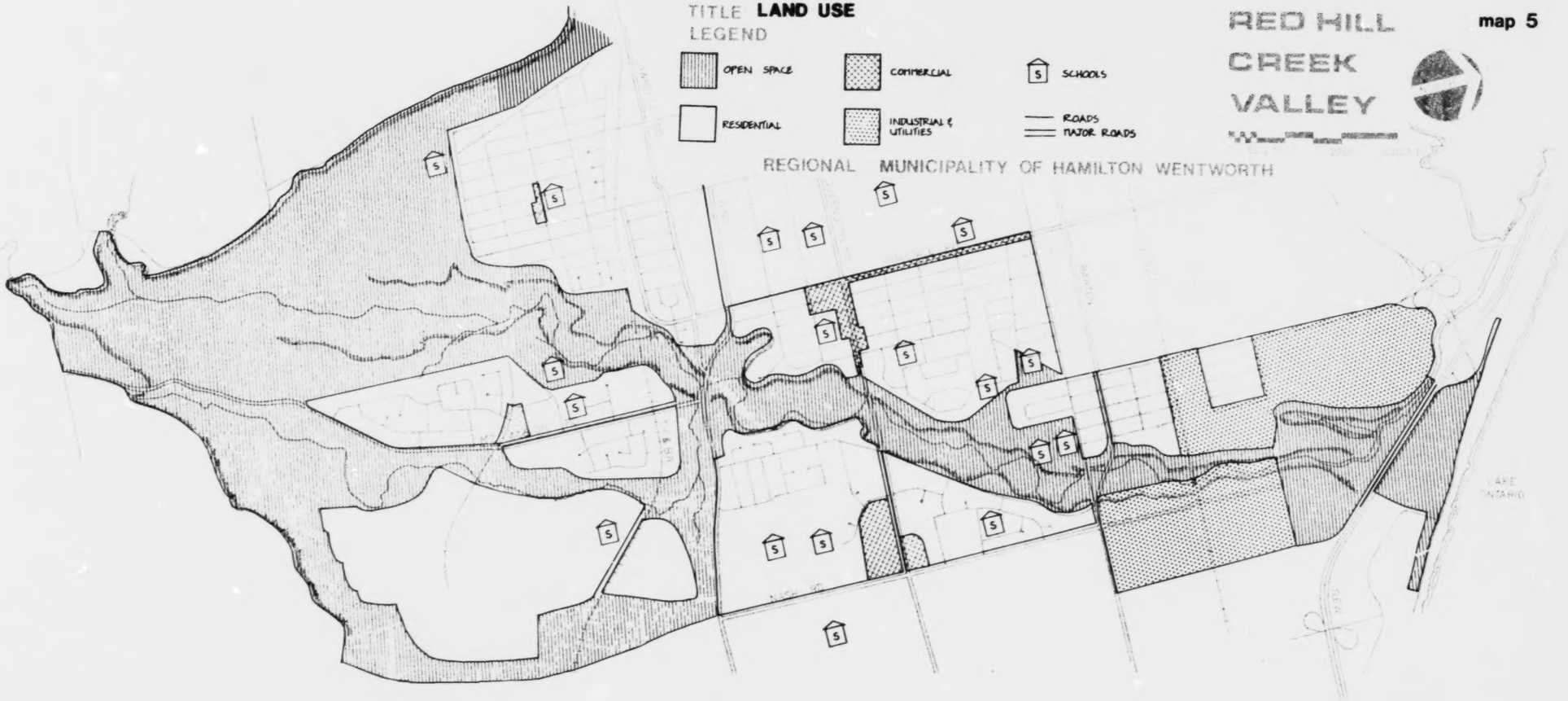
ROADS

MAJOR ROADS

REGIONAL MUNICIPALITY OF HAMILTON WENTWORTH

RED HILL CREEK VALLEY

map 5



3.2.2 Pedestrian and Vehicular Circulation System

The existing circulation system within the study area can be divided into two main categories, pedestrian and vehicular.

The pedestrian circulation within the study area includes three types of pedestrian movement: (1) the Bruce Trail, (2) pedestrian traffic crossing the open space corridor, and (3) pedestrian traffic using the corridor for recreational pursuits.

1. The Bruce Trail crosses the lower portion of the Red Hill Creek Valley north of the Niagara Escarpment linking Mount Albion Road in the east to Mountain Brow Blvd. in the west.

2. Pedestrian traffic crossing the open space corridor - the main routes include: a link across the valley at Greenhill Avenue, Hixon Road to Parkdale Avenue immediately north of the T.H. & B.R. and a crossing at Melvin Avenue. Most other pedestrian movement across the valley is associated with the major roads.

3. Pedestrian traffic using the corridor for recreational pursuits. The Red Hill Creek Valley contains an extensive network of pedestrian paths, providing opportunities for walking, jogging, nature appreciation and cross-country skiing in the winter. The majority of these are located between the escarpment and King Street.

The vehicular circulation within the study area consists primarily of roads providing access to the Red Hill Creek Valley and the activity areas found therein. These access points are located as follows:

- off Mount Albion Road, a dirt track extends into the vacant land providing access and parking to the more natural portion of the valley;
- off Greenhill Avenue, a road provides access to the King's Forest Golf Course and the Rosedale Arena;
- off Greenhill Avenue, a road provides access to the sports fields located below the Rosedale Arena.

Other access points do exist but these are not maintained and are often used by dirt bikes and "all terrain" vehicles. North of King Street, no vehicular access exists except for informal parking off King Street in the "Red Hill bowl" area.

3.2.3 Historic and Archaeological Sites

In terms of prehistoric archaeological sites within the proposed highway corridor, no such cultural remains were encountered which should be studied further, excavated or preserved. This is mainly due to the fact that the areas under study have already been heavily disturbed and very little contextual information remains.

It is of interest that the sites located on or adjacent to the proposed corridor are all located on well drained ground near a stream. These sites are as follows:

- HWT - 1: a scatter of chert flakes and a broken chert biface;
- HWT - 2: one chert flake and one possible retouched or utilized chert flake;
- King's Forest Park Site - here pottery sherds were located;
- Serpa: a late Archaic or Middle Woodland campsite

No cultural material was located in low poorly drained areas. Additional known sites which are located outside the corridor have been outlined on Figure 2.

With regards to the built-up environment, a stone structure at Upper James Street and the Albion Mills community is the major heritage resource within the corridor. Further research will be conducted into the relative values of these structures and into the feasibility of moving them, in consultation with the Association for Preservation Technology, Heritage Canada and other experts in this specialized field, if the road project proceeds.

Reference: Archaeological Survey and Heritage Resource Assessment, East-West/North-South Transportation Corridor: East Hamilton, DeLCan in association with Paleo Plan Inc., June 1980.

3.3 VISUAL ELEMENTS

The study area has been divided into visually similar areas to provide an overall visual analysis.

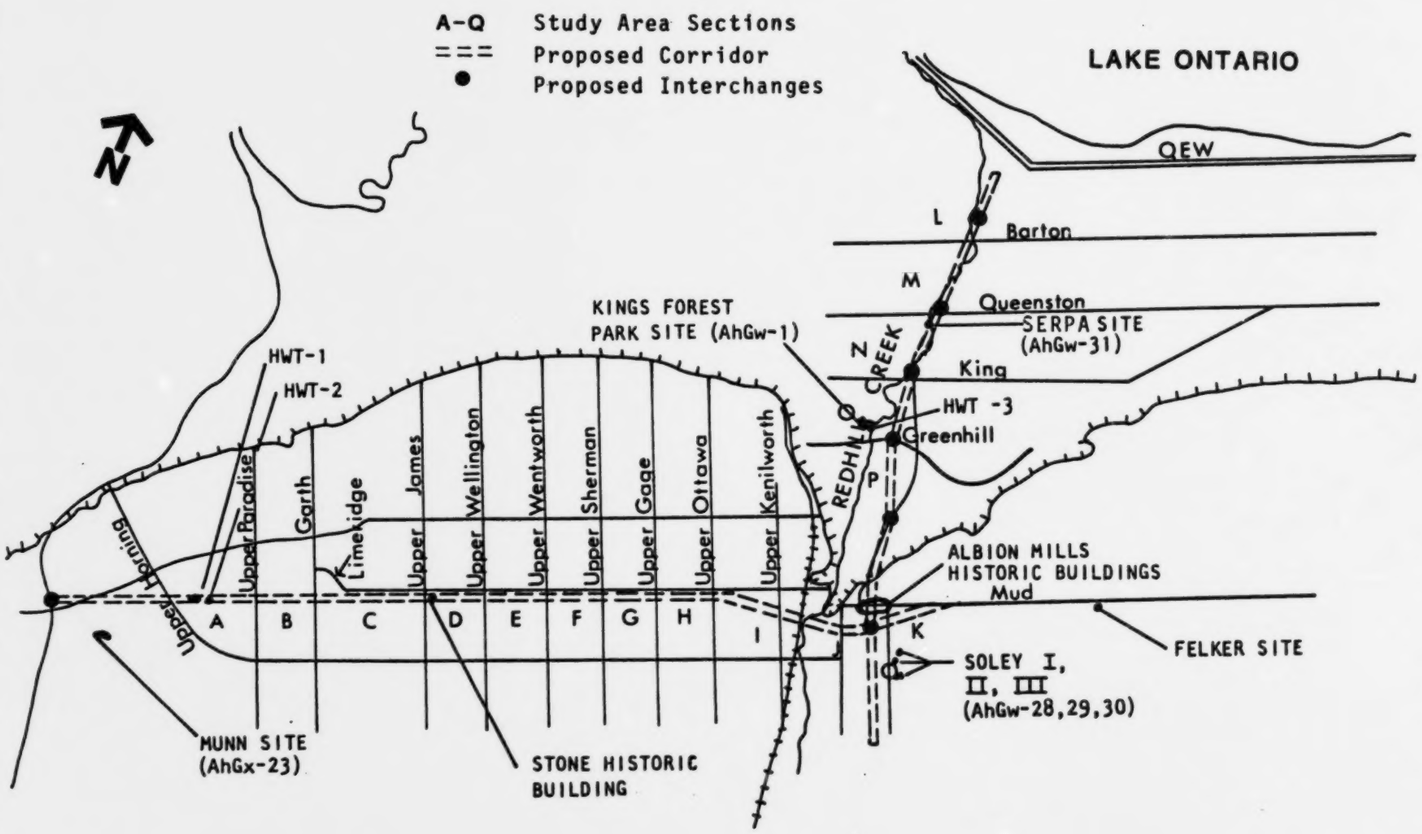
Lower valley (Q.E.W. to King Street): A narrow, distinct (20-50 feet in depth) river valley is found in this area. The valley slopes are covered with woody vegetation while the bottomland is a mixture of successional fields and scattered groves of trees, the remnants of several orchards are located on the valley floor. The Red Hill Creek meanders through the valley.

The valley provides an enclosed space, with limited views in a north and south direction broken by road and rail embankments. As a result of a predominantly residential and industrial land use this portion of the valley has limited visual significance from the surrounding area.

Public visual access is limited to a few short stretches of side streets and those thoroughfares crossing the valley, including King Street, Queenston Avenue, Melvin Avenue and Barton Street. The wooded side slopes add to the visual seclusion of the valley.

Upper valley (King Street to Niagara Escarpment): The study area changes its character from a narrow river valley to a wider, more open area of outwash material. The terrain is rolling and the sides of the river valley are prominent. The landscape is more visually accessible with the King's Forest Golf

Figure 2. Archaeological and Historic Sites Found In and Surrounding the Study Site



sive views within the area. Close to the escarpment the forest cover creates a more enclosed landscape.

The varied topography provides good views from this area to the escarpment, over much of the City of Hamilton and to Lake Ontario. This portion of the valley is visually accessible from the edges of the surrounding escarpment, surrounding roadways and residential areas.

The Niagara Escarpment: The Niagara Escarpment is the most visually significant feature of the study area. For the most part, it is covered with deciduous forest with a few scars, a railway crossing, Mount Albion Road crossing and a ski hill.

Due to the curvilinear shape of the escarpment in this area, it is visible from a large area to the north. From this feature good views are available over most of the eastern portion of the City of Hamilton and Lake Ontario.

The east-west corridor: The corridor is located on the relatively flat plateau above the escarpment. There are scattered blocks of vegetation separated by old field/grass communities. The Upper Ottawa Street landfill site is a noteable feature.

The views from this area are limited by existing and developing subdivisions on both sides of the corridor. In several locations wide views are available over open fields. The corridor is not visually significant from the surrounding area.

4.0 recreation site use analysis

The recreation site analysis consisted of three components:

- on-site observations
- contact with schools in adjacent neighbourhoods
- interviews with officials

To assist in visualizing the recreational aspects of the study area and how they relate to the surrounding area, three maps are inserted into this section of the report. These maps include:

- Map 6, Schools and Recreation Facilities, shows activities offered in and adjacent to the study area. It also identifies school sites located near the Red Hill Creek Valley.
- Map 7, Recreational Land Distribution, identifies the location and excess or shortage of neighbourhood and community parks in adjacent neighbourhoods. Only Corman and Kently neighbourhoods experience a shortage of open space.
- Map 8, Recreational Potential, identifies the potential for recreation within the study area ranging from land presently developed as recreational land to land suitable for recreational development to land of limited suitability for recreational development. Those areas classified as limited suitability for recreational development are constrained by such factors as steep slopes, unstable slopes, sensitive vegetation, wetlands, etc. In most instances, these constraints do not restrict these areas from use in a passive form of recreation, i.e. walking, jogging, and nature appreciation.

4.1 ON-SITE OBSERVATIONS

To standardize all field observations, a field survey sheet was designed. The survey sheet indicates: the date, map number, time started and time completed, location started and location finished, and the weather. Observations are given a location number and plotted on a survey map. The time of each observation is recorded. Three variables are recorded: the number of users, their approximate age, and the activity engaged in at the time of the observation.

The main advantages of this system are that it allows for standardization of data recording, it is spontaneous; recordings were made at the time of an observation, and a large area can be covered by one moving observer.

The main disadvantages of this system are that not all users can be seen from any one vantage point, that observations are time and location specific instead of covering continuous areas, and that estimates must be made of each variable.

Nevertheless, this field inventory method is suitable for its intended purpose: to provide a non-random data set of users of the Red Hill Creek Valley. But assuming that the field observations are made during typical time-periods, then the observations do, in fact, provide an acceptable indication of on-site activities.

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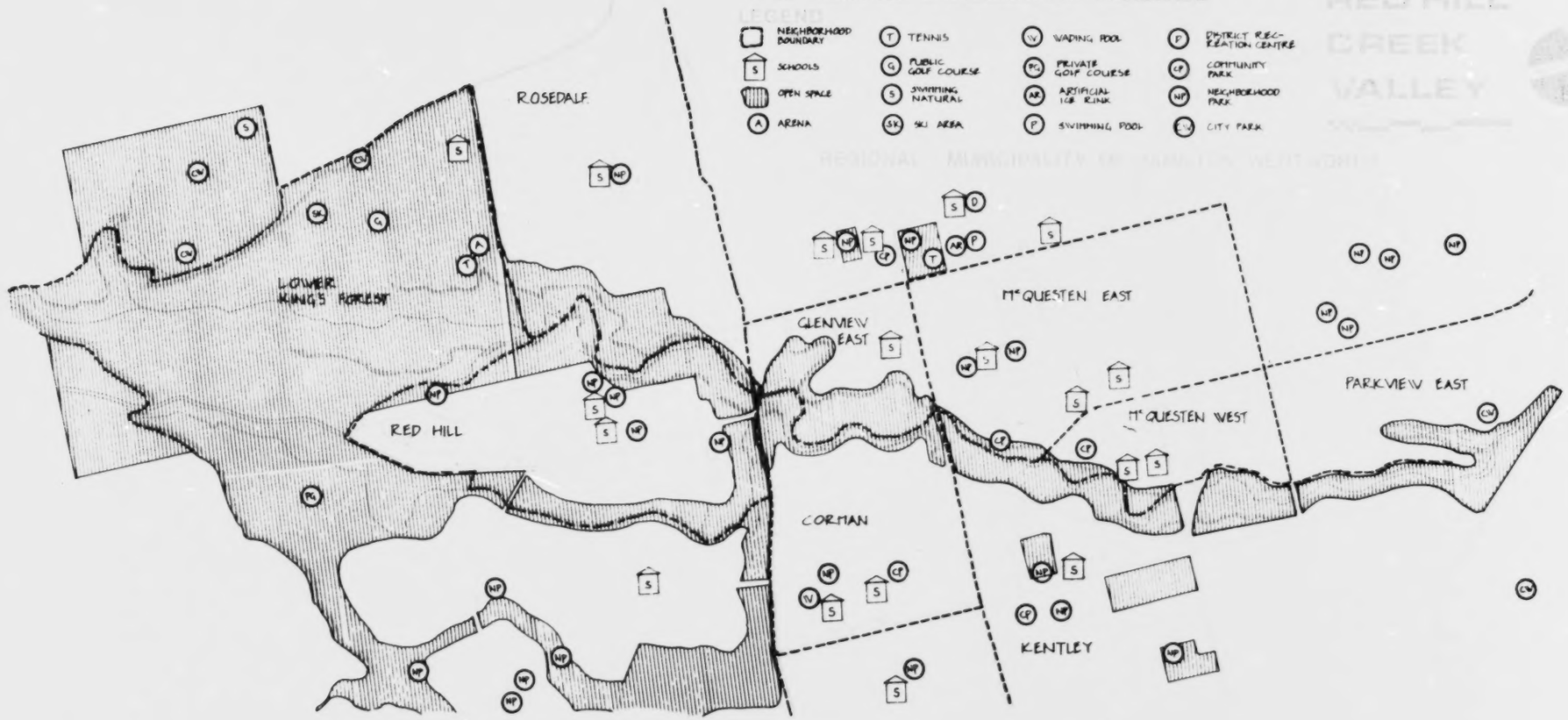
SCHOOLS & RECREATION FACILITIES

map 6



The site visitations were selected to offer a balanced cross-section of the uses during various times: week evenings, daytime, weekends and long weekends. Thus, these observations should provide some indication of variation of use, according to the time of day or day during the week.

Table 1 shows the type and frequency of activities observed. By far the most common activity in the valley is walking, Half (50%) of the users were walking, often in conjunction with some other activity or location. For example, walking through the valley to or from school, or walking a dog. Walking ranged from the informal and very casual to the more serious day-hiking type of activity.

The next most frequent activity observed is sitting (18%). Users were observed to be sitting both alone or in small groups. Perhaps the most common activity in conjunction with sitting is eating lunch, but this is, of course, also a function of some observations having been made during midday.

The broad category of "other" type of activities is next in frequency (13%). Included here are activities such as sunbathing, practicing golf, photography and viewing the landscape. Other activities of lower frequency are climbing on rocks and on slopes of the valley (7%), motorized trail or dirt bikes (9%), and running or jogging (3%).

The conclusion that may be drawn from Table 1 is that the valley is used primarily for passive recreation in an urban natural setting. The extensive network of informal trails also suggests that walking is a main recreation activity throughout valley, and it may be considered as a conjunct-activity to almost all the other activities as well. Of note is the extent of the activities observed, given especially that there are no facilities whatsoever now existent in most parts of the valley (other than sports fields and associated buildings in one or two locations). Thus, even if very rudimentary facilities such as picnicking tables and toilet or washroom facilities, were to be located along some of the more popular trails, the walking and hiking uses of the valley could very well increase substantially.

TABLE 1

ACTIVITIES OBSERVED
BY TYPE AND BY FREQUENCY

		Absolute Frequency*	%
1.	Walking	119	50
2.	Sitting	42	18
3.	Climbing	17	7
4.	Trail-Dirt Bicycles	20	9
5.	Jogging-Running	7	3
6.	Other	31	13
	TOTAL	236	100%

* Frequency of activities observed a number of users, since some users engage in more than one activity and since the range of activity types is small.

Table 2 shows the time distribution of users in the valley. During weekdays, observations of a user were made on the average every 4.0 minutes, for a total of 15.2 users per hour. Interestingly, the time-frequency of observations of users during weekend days is almost the same: one user observed on the average every 4.9 minutes, for a total of 12.2 users per hour. Based on the number of observations made, the time distribution of users appears to be remarkably uniform between weekdays and weekend days.

The spatial distribution of users in the valley was observed to be distinctly concentrated. In terms of this concentration, the valley may be divided into three segments. The downstream section north of Barton Street has almost no use. A total of only 48 users were seen here, constituting only 8% of the entire sample of users observed during all field surveys. This section of the valley is very narrow, has areas of dense, almost impenetrable, scrub vegetation, and has many areas of litter and garbage. The railway bridge here forms a pedestrian crossing over the valley, and is used by some pedestrians for viewing of the valley.

The middle section of the valley, between Barton Street and King Street has the second densest use. A total of 134 users were seen here, for a total of 21% of the total 632 observed.

The southern, upstream section of the valley, between King Street and Albion Falls, has the greatest extent of use. A total of 71% of the users are located in this, the upper part of the valley. (Note that the entire valley was not surveyed during each field trip, and hence the percentages do not add to 100% exactly.) However, in this section of the valley, users are also concentrated at the southern end, in the area closer to the falls.

It appears from the spatial distribution of users in the valley, that physiography influences use. The very low use in the northernmost part of the valley is a result of a combination of steep valley topography, and predominantly industrial land uses in the surrounding parts of the city.

Based on these observations, the conclusion that may be made is that the valley has a low to medium level of use. The valley has a high potential for passive outdoor recreation, and as an urban wilderness, but the present level of use does not truly reflect this potential.

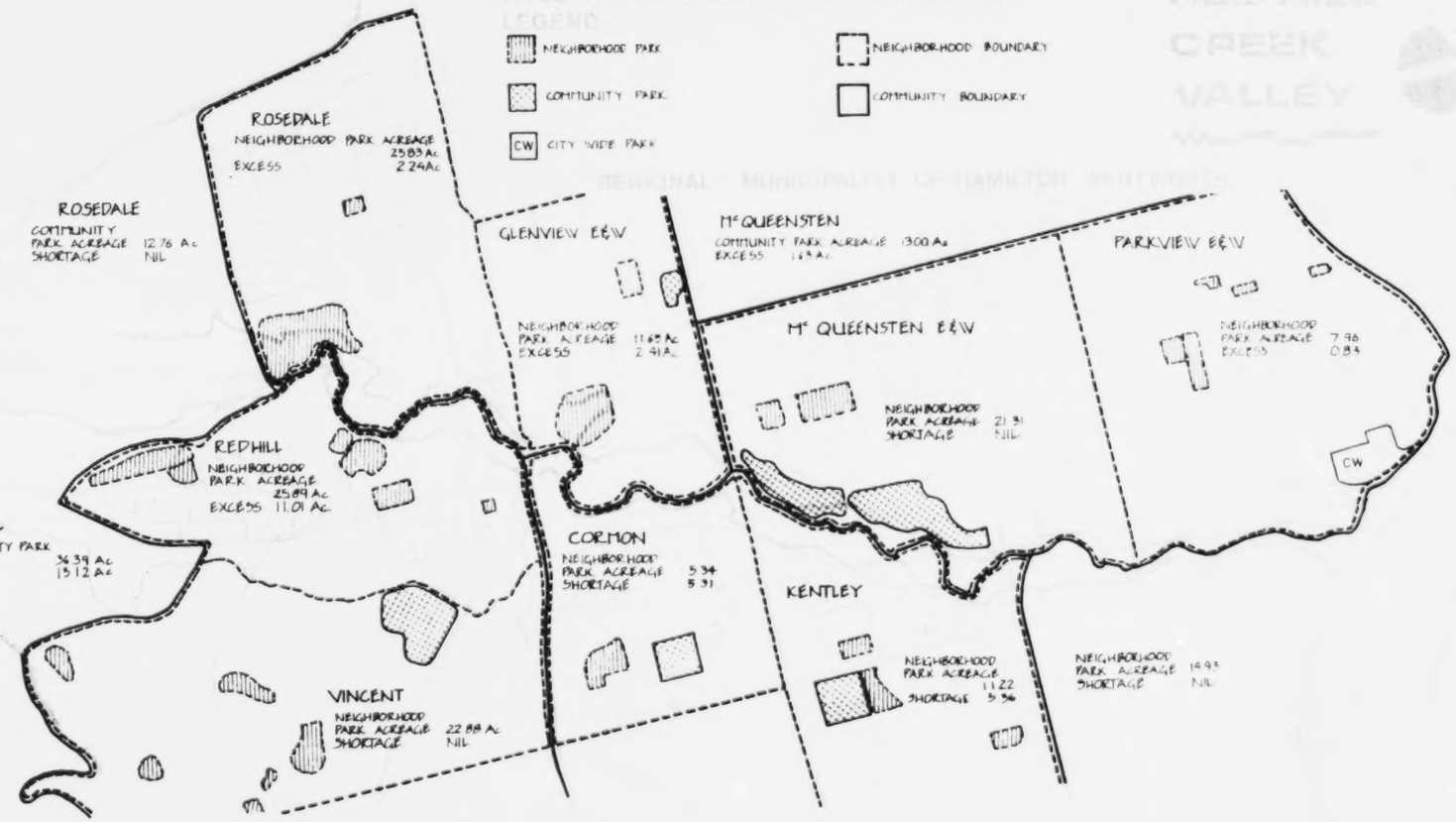
TABLE 2

NUMBER OF USERS AS A PROPORTION OF TIME OF OBSERVATIONS

	Total Users	Time Distribution of Users	User Density By Time
Weekdays	304	1 user/4.0 min.	15.2 users/hr.
Weekends	328	1 user/4.9 min.	12.2 users/hr.
Average All Days	632	1 user/4.45 min.	13.7 users/hr.

RECREATIONAL LAND DISTRIBUTION

map 7



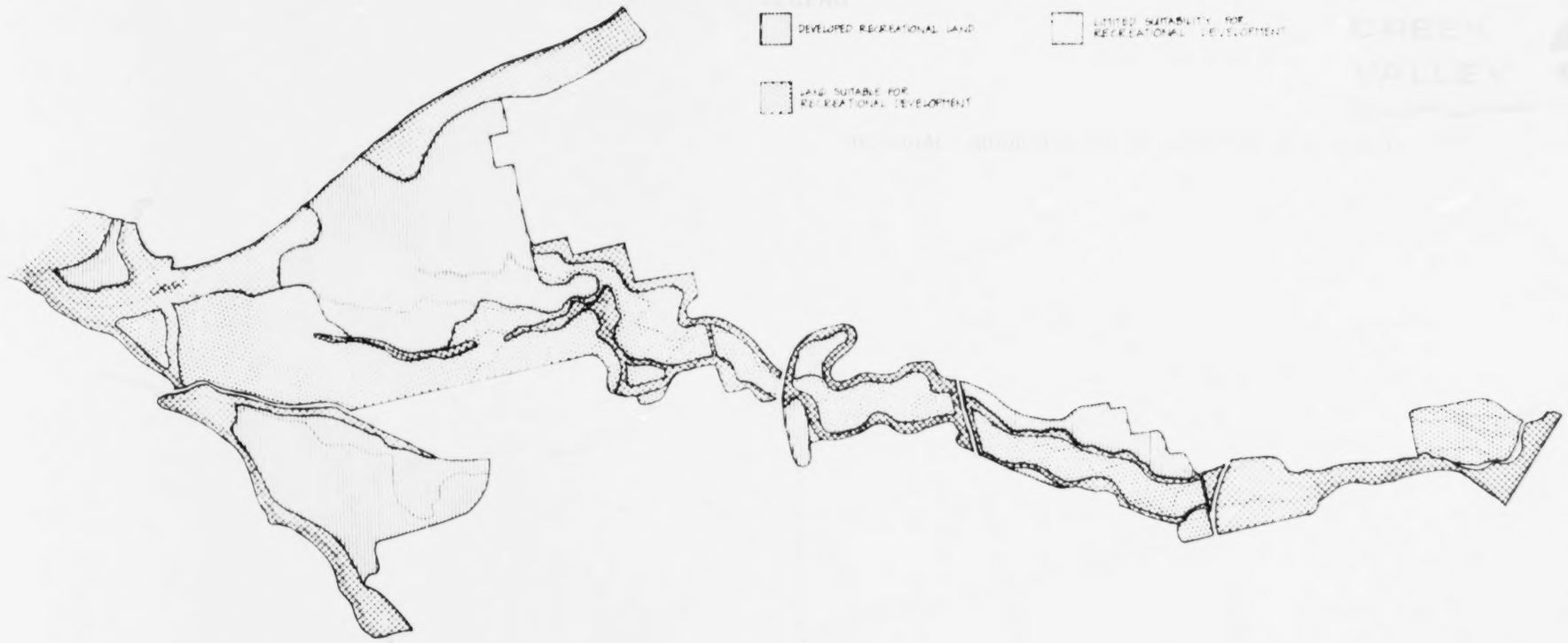
RECREATIONAL POTENTIAL

map 8

DEVELOPED RECREATIONAL LAND

LIMITED SUITABILITY FOR RECREATIONAL DEVELOPMENT

LAND SUITABLE FOR RECREATIONAL DEVELOPMENT



4.2 CONTACT WITH SCHOOLS

The intent of this part of the study was to record and assess uses made of the Red Hill Creek and its valley by schools in adjacent neighbourhoods. A total of 16 schools were contacted in writing. The letter requested information on school uses of the valley, on school enrollment catchment areas, and on long range plans for the school.

Unfortunately, only four schools responded to the request for information. Therefore, new letters were sent to the twelve schools which had not responded to the earlier letter, requesting the same information but no responses were received.

Two schools, of the four which responded to the earlier letter, indicated that no use is made of the Red Hill Creek Valley: Sir Winston Churchill Secondary School, and Sir Isaac Brock School.

The two other schools, of the four which responded to the first letter, indicated the following uses of the Red Hill Creek Valley:

1. Albion Secondary School: outdoor and physical education, such as orienteering, cross-country running and skiing;
2. Rosedale Public School: nature walks and science studies, in all seasons, a valley winter carnival, and field and sports days in in the valley.

Given the return rate of only four responses from sixteen schools - it is not possible to positively conclude what educational uses are made of the Red Hill Creek Valley, if any of substance at all.

To further assess the education uses of the valley, four program area supervisors were also contacted: geography, outdoor education, physical education, and science education. The supervisor for outdoor education responded, but no reply or acknowledgement of receipt of the letter was received from the other supervisors. The single reply indicated the following uses of the valley:

"1. primary classes taking walking tours of the area to study seasonal changes, animal life, etc.;
2. physical education teachers use the area for cross-country running and orienteering;
3. science teachers use the area for a collection of specimens and the study of natural life."

From the above review, it appears that the use made of the valley by different schools is minimal. The type of uses also are such that the introduction of a new roadway would not eliminate the possibility for them to continue. The roadway might, however, affect the quality of these activities. If sufficient natural areas could be developed, even with a roadway, nature study and science education could still continue.

4.3 INTERVIEWS WITH OFFICIALS

A number of interviews were carried out. The interpretations gained from these interviews are outlined below.

The lack of facilities in the Red Hill Creek Valley, especially in that part of the valley north of King Street, is perhaps explained in part by the policies of the Recreation Department and the Parks Department of the City of Hamilton. These policies reflect the higher priority for sports fields, than for facilities in natural environment parks. The policies also reflect the goal to catch up on the supply of sports-oriented facilities; a low priority has therefore been assigned to investments in natural areas, such as the Red Hill Creek Valley. In Hamilton, there is strong expression by neighbourhood groups for sports facilities. No equivalent lobby city-wide exists which might voice a demand for outdoor recreation facilities in passive areas or in city-wide or regional-scale natural areas. Thus, at present in the Red Hill Creek Valley, there are substantial sports facilities in the southern part (three softball diamonds, two hardball diamonds, one soccer pitch, as well as a golf course, and a tree nursery) but few facilities north of King Street.

The Red Hill Creek Valley is important to the residents of east Hamilton. The valley does not rank in city-wide or regional importance, as do for example the escarpment and the lakeshore. Furthermore, in adjacent Stoney Creek, immediately east of the Red Hill Creek, a similar ravine topography (albeit of a lesser scale) does exist. Thus, in terms of city-wide use of the valley, the Red Hill Creek is more of a local (east Hamilton) significance, with the possible exceptions of the upper sections in the southern part near the escarpment. But here, the attraction is wider due to the better facilities, and perhaps due to the more visually dramatic landscape. Paradoxically, because the valley is wider here, the impact of the roadway would be less than it would be in the northern part of the valley.

When the Red Hill Creek is considered with reference to other large-acreage open space facilities, its regional or city-wide significance may be considered. Gage Park serves a function in this part of Hamilton somewhat analoguous to that of High Park in Toronto; a large urban park for both passive and the more intensive activities. Coutes Paradise and the botanical gardens serve also as large-acreage passive recreation areas. Along the lakeshore, the western portions of the harbour will most likely be developed along an Ontario-place concept, to act as an attractor to large numbers of users. The eastern portions of the harbour are more industrialized, but the further west one moves, the more passive and large-acreage the uses become. Along the Beach Strip, the plan is to acquire private properties as they become available on the open market, but to continue the public recreation uses here. Confederation Park on the lakeshore is being administered for the Region by the Conservation Authority. The authority also has holdings at the southern end of the Red Hill Creek Valley, and is developing a park there, at this time.

4.4 CONCLUSIONS

1. The Red Hill Creek Valley has a potential for recreation use. At the present time, this potential is not being fully realized. Most uses seem to be by people from locally adjacent neighbourhoods, although there is some evidence of more city-wide use on holiday long weekends.

2. The predominant reasons for the lack of facilities in the valley are the policies in the city. The city has emphasized the development of sports fields and organized recreation. In the past, the attempt

has been to catch up in the provision of sports facilities and facilities for organized recreation, rather than a policy emphasizing the development of passive recreation in natural areas. This latter role was seen to be more appropriate for the conservation authority. At present, most facilities that do exist in the valley are south of King Street.

3. The physiography of the valley provides for both its greatest asset and its greatest liability. As its asset, it provides vistas and an appealing landscape in the upper portions of the valley. Because the valley broadens out south of King Street, the physical impact of the proposed roadway would not be as acute, as it would be north of King Street where the valley is very narrow and bounded by steep slopes. Hence, north of King Street the recreation potential is very limited due to topography. While the impact by the roadway here would be severe, it would not have an adverse effect either on the very low (almost non-existent) recreation use at present, nor on the recreation potential in the future (very limited, due to topography. Conversely, south of King Street, impact of the roadway would be ameliorated by the wider, terraced topography of the upper reaches of the valley. However, since vistas are longer, visually the roadway may intrude into a wider territory.

4. The proposed roadway would have a variable effect on recreation, depending on which part of the valley one considers. North of Barton Street, the valley as a physical entity would be fully utilized by the roadway. Fortunately, however, in this part of the valley, there is also very little recreation that has been observed in the field survey. If alternate parks were to be established in the middle of the neighbourhood to cater to the needs of surrounding residents, their open space opportunities would even, in fact, be better than they are now.

5. In the portion of the valley between Barton Street and King Street, the valley is wider than it is north of Barton Street, and the physical impact of the roadway would therefore be less. There is more recreation use that takes place in this section of the valley, especially in the area between Queenston Road and King Street. However, with careful location of the roadway and with close attention to access and circulation, the impact on recreation could well be ameliorated. Access could also be enhanced for some locations.

6. South of King Street, in the upper reaches of the valley, the broad landscape and the terraces would limit the immediate physical impact of the roadway on recreation activity. Unfortunately, since vistas or views are also lower, the roadway as a physical structure may intrude into the visual environment of the valley. The extensive scale of the valley here, however, would mean that direct activity conflicts would be minimized, if they would occur at all.

5.0 concept alternatives and master plan

5.1 CONCEPT ALTERNATIVES

Many design features were considered in the process of arriving at an acceptable proposed master plan. Using combinations of these design features two concept alterntives were generated for comparison and comment.

The features that were considered are divided into three categories: local parks, passive park (regional) and circulation. Table 3 lists these design features under the following headings: description need/objective, natural environment, cost and flexibility.

Concepts 1 and 2 are outlined as follows:

CONCEPT 1

Goal: To satisfy recreation demand and develop the Red Hill Creek Valley as a linear park system, connecting Lake Ontario (Confederation Park) to the upper escarpment area (Conservation Area and East-West Corridor) in co-existence with the proposed roadway.

Objectives: - Connect Confederation Park to the East-West Corridor with a bicycle-pedestrian link.
- Create recreational activity nodes along the valley accessible by automobile.
- Satisfy deficit in neighbourhood parkland in Corman and Kentley neighbourhoods.
- Provide a suitable roadway crossing for the Bruce Trail.
- Improve Albion Falls area by cleaning up valley, and providing pedestrian access to lower valley area (north) and the conservation area (south). (The relocation of Mountain Brow Boulevard from its present location by Albion Falls is the subject of another study being carried out by the Planning Department.)
- Provide a major passive recreation area immediately north of the escarpment in the widest portion of the valley, offering nature trails, picnic areas, viewing areas, interpretive centre, bicycle trails, cross-country skiing trails and rental opportunities (bicycle/cross-country skiing).
- Provide adequate pedestrian access across the proposed expressway.
- Improve access to the sports fields in the valley adjacent to the Rosedale Arena.

CONCEPT 2

Goal: To satisfy recreation demand and develop the upper Red Hill Creek Valley into a major recreational opportunity area in co-existence with the proposed roadway.

Objectives: - Allow "parkway" road access from Mud Street in the south to Greenhill Avenue (Rosedale Arena) in the north providing continuous vehicular access to all recreation activity nodes in the upper

TABLE 3(a)

LOCAL PARKS (proposed for development along Red Hill Creek Valley)

DESCRIPTION	NEED/OBJECTIVE	NATURAL ENVIRONMENT	COST	FLEXIBILITY
Develop parkland adjacent to Mt. Albion Road on top of the escarpment	- provide active recreation opportunities to future population growth in area	- closely linked to major open space area - flat land suitable - good views	- dependent on activities	- very flexible
Develop parkland in creek valley adjacent to Corman neighbourhood near King Street	- to supplement shortage of neighbourhood parkland in Corman neighbourhood	- bottomland - partially treed - will be close to expressway - access will be difficult crossing valley side walls	- depend on access road and activities	- moderately flexible
Develop parkland in creek valley adjacent to Kentley neighbourhood-Queenston Road	- to supplement shortage of neighbourhood parkland in Kentley neighbourhood	- bottomland - partially treed - will be close to expressway - access will be difficult crossing valley side walls	- dependent on access and activities	- moderately flexible
Purchase parkland in Kentley and Corman neighbourhoods with funds generated from purchase of the expressway R.O.W.	- to supplement shortage of neighbourhood parkland in Corman and Kentley neighbourhoods	- parkland will be found outside Red Hill Creek Valley	- dependent on land costs and development costs	- very flexible
Expand facilities at sports fields below Rosedale Arena by providing increased no. of fields, parking, trails and picnic facilities	- provide attractive sports field complex for adjacent schools and community	- bottomland - well protected from winds - adjacent to creek - natural area	- cost of expanding facilities, maintenance and providing parking and improved access	- moderately flexible
Jogging Trails	- activity condusive to valley land experience	- valley bottomland	- path	- flexible

TABLE 3(b)

REGIONAL PASSIVE PARK (proposed in the upper reaches of King's Forest in the Red Hill Creek Valley)

DESCRIPTION	NEED/OBJECTIVE	NATURAL ENVIRONMENT	COST	FLEXIBILITY
Access by way of extending Mt. Albion Road under the proposed expressway	- to provide vehicular access to regional passive park	- road will consist of two bridges under the expressway	- construction of two bridges at expressway crossing	- inflexible as road only provides access to single facility
Access - extending road off Mud Street to regional passive park facilities	- provide vehicular access from road system into park	- crossing of the escarpment	- approximately 4000 feet of roadway	- moderately flexible
Access - extending road off Greenhill at Rosedale Arena to regional passive park facilities	- provide vehicular access from city road system into park	- crossing of Red Hill Creek and along river valley - cross valley slopes	- approximately 5000 feet of roadway	- moderately flexible
Parkway running through parkland from Mud Street to Greenhill at Rosedale Arena	- to provide vehicular access to regional passive park and link activities in park	- roadway across rolling terrain, creek and traverse steep slope of the escarpment - road interferes with some natural environment	- escarpment crossing - Red Hill Creek crossing	- moderately flexible depending upon terrain
Parkway running through parkland from Mt. Albion Road to Greenhill at Rosedale Arena	- will provide vehicular access to regional passive park and link activities in park - provide cross valley vehicular access	- roadway will cross rolling terrain, creek, then pass under two bridges carrying the expressway	- Red Hill Creek crossing - expressway crossing (two bridges)	- moderately flexible
Mountain Brow Road - termination before crossing Albion Falls	- to enhance the Falls (natural feature) and remove pedestrian-vehicular conflict at Falls	- Red Hill Creek waterfalls over the escarpment	- road closure and parking	- little flexibility

TABLE 3(b) cont'd

DESCRIPTION	NEED/OBJECTIVE	NATURAL ENVIRONMENT	COST	FLEXIBILITY
Interpretive Centre - structure pointing out natural features - trail maps - washrooms - rental equipment - snack bar	- terminus for trails - focal point of park - provide information to park visitors - provide necessary services	- located in wooded area - sheltered - close to views - close to activities - minimum disturbance to natural environment	- dependent on level of sophistication	- very flexible
Picnic Areas	- destination for picnickers - close to City yet in a natural environment	- located in wooded area - open areas for unorganized recreational pursuits - views	- low costs	- flexible
Horseback Riding	- provide opportunities to ride horses in valley setting	- wooded, rolling landscape - along creek valley	- housing and maintenance of horses - pasture, etc.	- flexible
Nature Trail in valley south of Kings' Forest Golf Course	- a path to provide viewing of the natural features in the valley	- woodland, plantation, escarpment, creek, views, etc.	- minimal, natural experience	- very flexible
Cross Country Ski Trails in kings' Forest area of valley	- provide outdoor recreation opportunities in the winter	- good rolling terrain golf course etc. - sheltered from winds	- minimal	- very flexible
Jogging Trails in park with exercise stations	- satisfy demand for outdoor passive recreation	- rolling landscape	- 1.5 miles of path plus exercise stations	- flexible

TABLE 3(c)

LINKAGES (non-motorized linkages within Red Hill Creek Valley system and the east west expressway right-of-way [ROW])

DESCRIPTION	NEED/OBJECTIVE	NATURAL ENVIRONMENT	COST	FLEXIBILITY
Pedestrian Path - across expressway at Greenhill	- linking Red Hill neighbourhood to parkland and recreation facilities	- over expressway and down valley side	- constructed in conjunction with highway	- depends on overpass design
Pedestrian Path - in parkland between escarpment and the T.H. & B.R.	- linking major activities in park	- along valley floor	- no major obstacles to cross	- very flexible
Pedestrian Path - between valley and Mountain Brow area	- provides linkage between parkland above and below escarpment	- crossing escarpment	- difficult terrain may increase costs	- locations of both is flexible
Pedestrian Path - from Albion Falls to parkland in Kings Forest area	- provides link to scenic natural features	- wooded valley beside Red Hill Creek	- heavy use of trail may demand construction of walkways and steps near Falls	- location limited flexibility
Pedestrian Path - crossing valley near T.H. & B. Railway Tracks	- provide link between Rosedale and Red Hill neighbourhoods	- across deeply incised valley and over expressway	- major structure will need to cross expressway	- very flexible
Bicycle Path - (North-south) using valley route	- link upper escarpment area to Confederation Park and connect recreation activities along valley	- along route of valley and along top of valley sides	- cost will depend on treatment of creek and transportation R.O.W. crossings	- moderately flexible
Bicycle Path - (North-south) using valley and street system north of King Street	- link upper escarpment area to Confederation Park	- through natural valley land to King Street - city street system north of King Street	- not as many obstacles to cross as valley route	- moderate flexibility

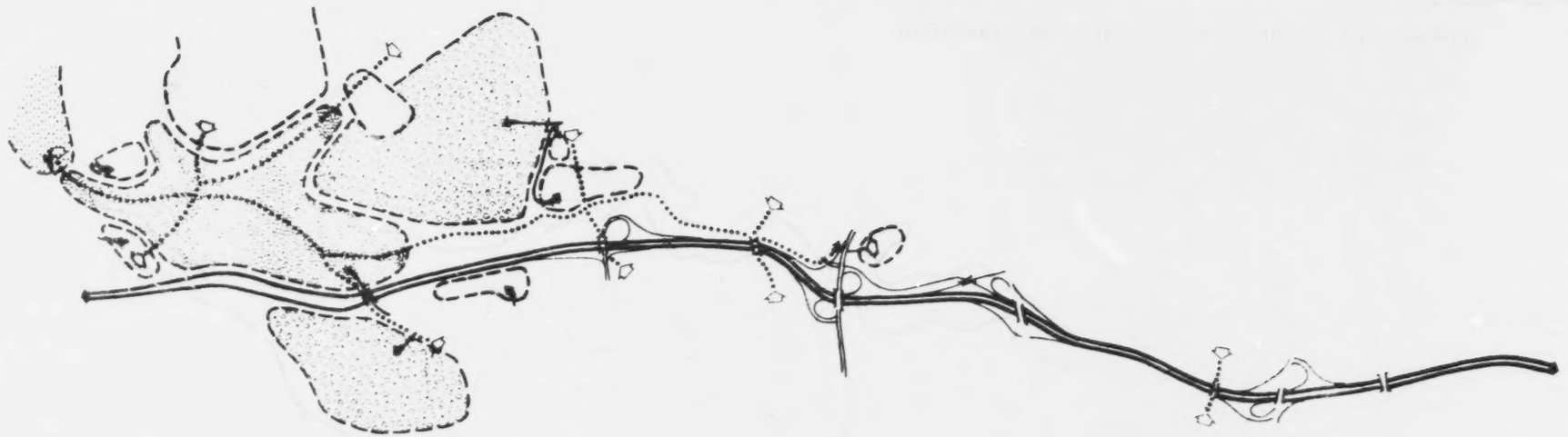
TABLE 3(c) cont'd

DESCRIPTION	NEED/OBJECTIVE	NATURAL ENVIRONMENT	COST	FLEXIBILITY
Bicycle Path - between King Street and escarpment (loop system)	- to provide bicycling opportunities within the Red Hill Creek Valley	- through valley system	- variable depending on route	- very flexible
Bicycle Path (East-west) beside expressway	- to provide bicycle link from residential area to Red Hill Creek Valley	- adjacent to expressway - generally flat	- only costs will be signage and surfacing	- low flexibility due to limited space
Bruce Trail - on top of escarpment crossing expressway at Mud Street and past Albion Falls	- route Bruce Trail in more natural area and pass natural feature at Albion Falls	- along top of escarpment - past Albion Falls - good views	- creation of new trail in certain sections	- moderate flexibility
Bruce Trail - existing route	- existing trail	- along escarpment - through residential area	- trail existing and natural	- moderate flexibility

PREFERRED CONCEPT

map 9

- passive parkland
- golf course
- active parkland
- conservation area
- ..... pedestrian paths
- pedestrian access
- roads
- vehicular access



Red Hill Creek Valley.

- Satisfy deficit in neighbourhood land in Corman and Kentley neighbourhoods.
- Provide a suitable roadway crossing for the Bruce Trail.
- Provide bicycle trail network in the upper valley area.
- Improve Albion Falls area by cleaning up the valley, and providing pedestrian access to lower valley area (north) and conservation area (south). (The relocation of Mountain Brow Boulevard from its present location by Albion Falls is the subject of another study being carried out by the Planning Department.)
- Provide a major passive recreation area immediately north of the escarpment in the widest portion of the valley, offering nature trails, picnic areas, viewing areas, interpretive centre, bicycle trails, cross-country skiing trails and rental opportunities (bicycle/cross-country skiing).
- Provide adequate pedestrian access across the proposed roadway.
- Develop existing sports complex in valley adjacent to the Rosedale Arena.

On review of these two concepts a preferred concept was derived which combined the most suitable features from each concept. Map 9, The Preferred Concept, illustrates graphically the recreation facilities that are proposed for the study area and how they inter-relate with each other, the surrounding neighbourhoods and the proposed roadway.

5.2 PROPOSED MASTER PLAN

5.2.1 Introduction

The proposed master plan for the study area was developed from discussion of the assessed demand and feasibility of the various activities and features of the two development concepts. The development concepts were used as a stepping stone to arrive at the preferred concept and finally the proposed master plan.

The plan has evolved in conjunction with the highway location plans being developed by DeLCan and a noise study being conducted by Valcoustics Canada Limited. Also the proposed development concepts used in the formulation of the proposed master plan were displayed at public information centres and were discussed with the public that attended.

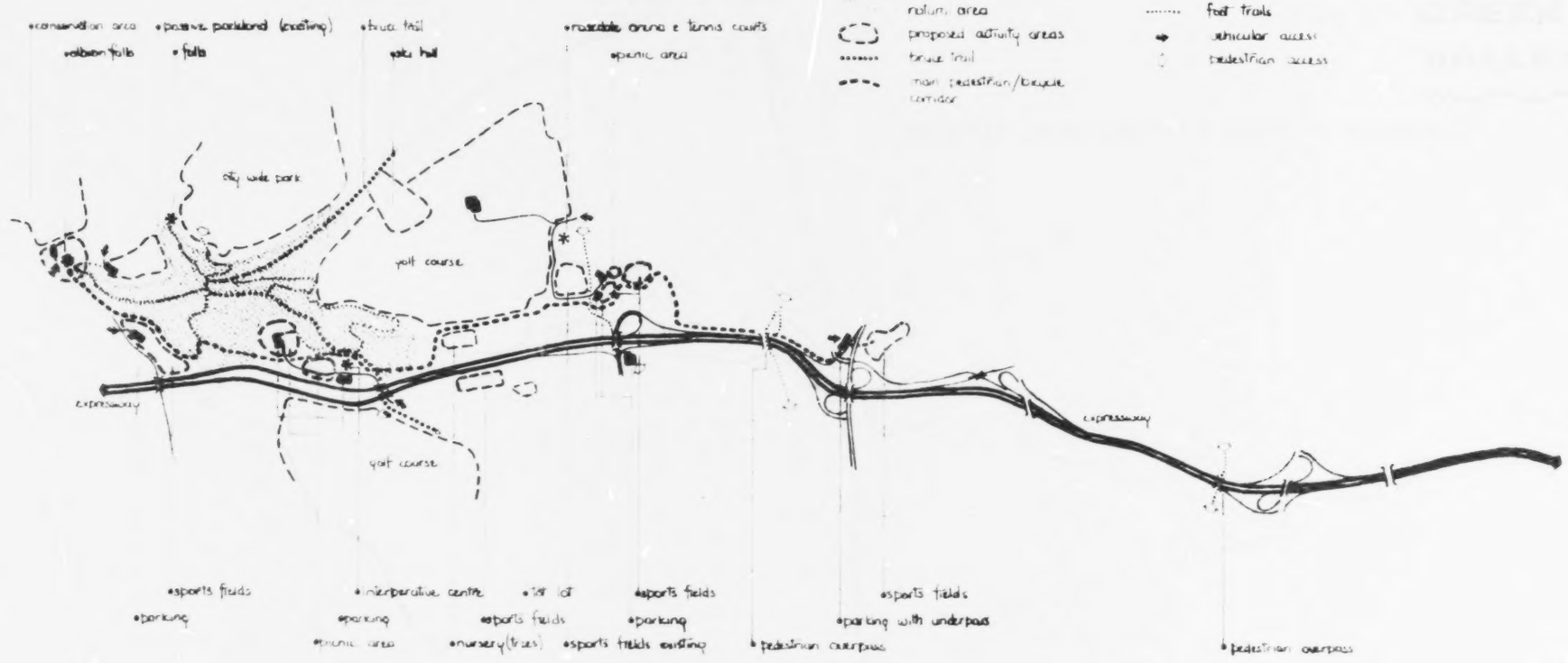
Goal: The proposed master plan attempts to satisfy local and regional recreational demand by developing portions of the Red Hill Creek Valley as recreational open space. It also strives to provide adequate pedestrian and vehicular access to facilities in the valley.

Objectives:

- To satisfy the local neighbourhood and community demands for recreational open space.
- To provide the City of Hamilton with a major passive park area.
- To provide adequate vehicular and pedestrian access to recreation facilities.
- To arrange recreation facilities within the Red Hill Creek Valley minimizing conflicts between the facilities, and adjacent land uses.

MASTER PLAN (RECREATION)

map 10



return area
proposed activity areas
bicycle trail
main pedestrian/bicycle corridor
foot trails
vehicular access
pedestrian access

- Minimize the potential noise and visual impacts of the proposed roadway.

5.2.2 Recreation Facilities

Neighbourhood Parkland: The only neighbourhoods with a deficiency in neighbourhood parkland area are Corman and Kentley.[1] The solution to satisfying this need for parkland is to purchase vacant lands within the neighbourhoods. The development of lands in the Red Hill Creek Valley is not recommended to satisfy this need due to the proximity to the roadway, restricted access, steep terrain and poor location with respect to the majority of the neighbourhood population.

Existing Sports Fields: The sports fields in the Red Hill Creek bowl area, immediately north of King Street need improved parking and access facilities. This is to be accommodated by providing parking on the south side of the proposed King Street route across the valley with the pedestiran access under King Street to the sports complex.

The sports fields in the Red Hill Creek Valley adjacent to the Rosedale Arena will be provided with improved vehicular access off Greenhill Avenue, new parking areas and pedestrian access from the east side of the valley. On the proposed master plan, areas have been identified for new sports fields and a picnic area to be added when demand warrants this type of expansion.

The area bordered by the proposed roadway, the Agate Street extension to Mud Street and the Niagara Escarpment; now vacant land, has been identified as land to be set aside for future use as an active sports area to be developed when demand warrants it.

5.2.3 Passive Parkland

The area north of the escarpment and immediately west of the proposed roadway has been identified as an area suitable for development as a major passive park due to the size of the parcel of undeveloped land, the inherent natural beauty, interesting topography and vegetation cover.

The park could offer a nature interpretation centre, picnic areas, walking trails, interpretive nature trails, cross-country skiing opportunities, and access to the Bruce Trail.

The focal point of the park could be the interpretive centre, with access from the south end of Mount Albion Road, under the proposed roadway. A service road could be constructed from the Rosedale Arena area to the interpretive centre, this will be used by service traffic vehicles, pedestrians and bicycle traffic. The service road could eventually be used as a parkway, connecting the recreation activities in the southern portion of the valley and providing access across the valley in an east-west direction. This access would not be recommended until problems

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[1] Source: Passive and Active Recreation Analysis of the Red Hill Creek Valley, Prepared for: The Mountain East-West, North-South Corridor Study, 1979.

of vandalism, all terrain vehicles and dirt bikes have been resolved.

There is a large parcel of land located above the escarpment, bordered by the proposed roadway to the south and east, Mud Street to the north and the Conservation Authority land to the west. This land is proposed for use as public open space. The present land uses include scattered residential properties, vacant and marginal farmland and a nursery operation.

The construction of the new roadway and the proposed land use change would necessitate revising the existing road network and access points. New access on Pritchard Street could be considered by overpassing the proposed roadway. If the road access across Albion Falls is terminated, it would allow for improved recreational use of the falls area. The land would need to be rezoned, the existing scenic drive and bus routes through the area would be rerouted.

The potential uses for this large area of open space include passive parkland, viewing opportunities of Albion Falls, camping facilities, restaurants and other compatible land uses. It would be very complementary to the recreational intent for the Red Hill Creek Valley, adjacent to it.

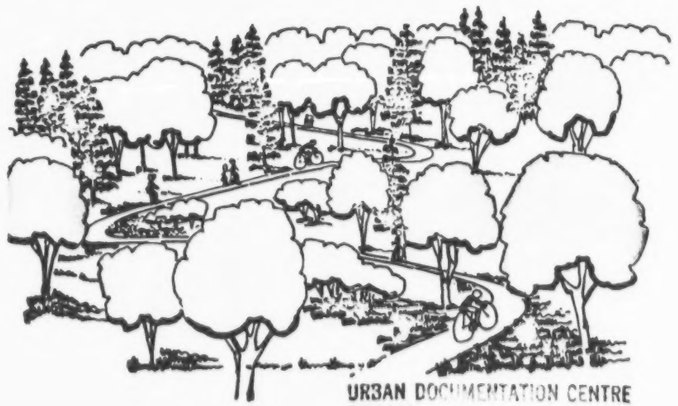
5.2.4 Circulation

Bruce Trail: The Bruce Trail will follow its existing path across the Red Hill Creek Valley, a secondary route shall be posted providing access to the Albion Falls area.

Pedestrian Paths: An interpretive nature trail system will be layed out in the southern portion of the valley radiating from the interpretive centre.

- A pedestrian path will link the Mount Albion Falls area to King Street, it will follow a route down the centre of the valley linking up with the sports field area, the interpretive centre and several scenic lookout areas.
- A path will link the Red Hill Creek Valley with the Regional Park area, above the escarpment, immediately to the west of the valley.

Figure 3.



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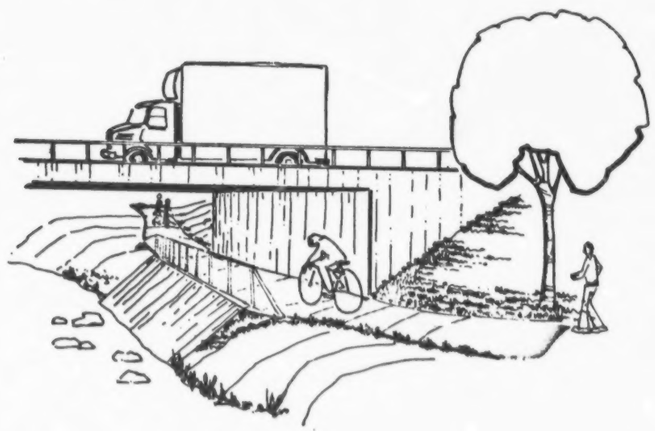
- A pedestrian link will cross the valley at Greenhill Avenue providing access from the east side of the valley to the recreation facilities adjacent to the Rosedale Arena.

- A pedestrian link across the valley immediately north of the T.H. & B. Railway line will be constructed to replace the existing link and to provide an alternative pedestrian crossing to King Street which will be transformed into a busy interchange.

- A pedestrian link across the valley between Queenston Road and Barton Street will provide access to the schools in the immediate area and replace the pedestrian crossing now provided by Melvin Avenue.

Bicycle Path: Cycling will be accommodated within the valley corridor although paved surface bicycle paths will not be constructed. Cycling opportunities will be available on paths also designated for pedestrians, excluding nature trails, and the Bruce Trail. Interruptions will occur, i.e. steps, steep slopes, etc.; this will be necessary to discourage the use of motorized vehicles on these paths. Cycling will be accommodated from the Albion Falls area to King Street. Figures 3 and 4 illustrate how the circulation system may overcome some of the physical barriers.

Figure 4.



6.0 the roadway

6.1 PHYSICAL IMPACT

Physical and Biological Setting: The environmental impact of the proposed roadway on the relatively flat plateau area above the escarpment will be minimal due to the area's low topographic relief, the lack of significant vegetation stands and the already disturbed nature of the land along this portion of the route.

The escarpment face will be impacted by the roadway to a greater extent. In this location cut and fill will change the immediate landscape and vegetation will be removed. This impact can be mitigated to a certain extent by dividing the roadway through this section, thus, retaining an undisturbed area between the opposing lanes of traffic. Also, vegetation on both sides of the roadway should be left undisturbed as much as possible. The broad area of outwash materials north of the escarpment extending as far north as the Greenhill Avenue area is minimally affected by the roadway which follows the route of the existing Mount Albion Road, then veers off behind the homes on Glen Castle Drive adjacent to the existing hydro corridor. Thus, most of the lands are already disturbed. This portion of the roadway does not affect the Red Hill Creek. Of the 156 acres of woodlands in this section of the valley, only 14 acres will be disturbed by the roadway.

North of Greenhill Avenue the valley becomes narrower and more confined, here the roadway follows a route down the middle of the valley. As a result of construction, 42 of the 145 acres of existing woodlands will be disturbed. Also 1.3 km of the Red Hill Creek will need to be channelized.

Land Use: The study area is comprised of predominantly vacant land. As a result the impact on existing land use is minimal. Of the 76 acres of existing developed recreational areas only 9 acres will be disrupted by the roadway.

Circulation System: The introduction of the roadway into the Red Hill Creek Valley will disrupt random pedestrian access across the valley.

Motorized off-road vehicles, i.e. dirt bikes and four wheel drive vehicles, will find their access restricted by the physical barrier imposed by the new roadway. The construction of the roadway will provide pedestrian access across the valley at predetermined locations (see Proposed Master Plan). Existing vehicular access points will be improved and an underpass will be provided at the southern termination of Mount Albion Road.

Historical and Archaeological Features: The historic, archaeological features found to be on the route of the proposed roadway are of little or no importance. A stone structure at Upper James Street and the Albion Mills community are of historical significance and will be lost unless measures are taken to move them.

6.2 IMPACT OF THE ROADWAY (SPATIAL)

The proposed roadway extends the entire length of the study area. Through the east-west section, the study area will be totally consumed by the roadway. In the north-south section (Red Hill Creek Valley) the roadway will take up a smaller portion of the area leaving a large amount of potentially useable land.

The route of the roadway follows the east side of the valley as far north as the T.H. & B. Railway embankment, thus, leaving a large area of undisturbed land on the western side of the valley. From the T.H. & B. Railway north, the roadway corridor follows a route down mid-valley, therefore disrupting most of the land in this section.

The spatial impact of the roadway in the Red Hill Creek Valley from the Niagara Escarpment to the C.N.R. tracks is outlined in Table 4.

The valley has been divided into five sections (south to north) to assist in the assessment of impact on the various portions of the valley.

1. Top of the escarpment to Greenhill
2. Greenhill to King Street
3. King Street to Queenston
4. Queenston to Barton
5. Barton to C.N.R. tracks
6. The entire valley

6.3 VISUAL IMPACT AND MITIGATION

Throughout the planning stages of the Red Hill Creek roadway the visual impact has been a major concern. The reasons for concern include:

1. the surrounding land uses, primarily low density residential and recreational;
2. the crossing of the Niagara Escarpment, and
3. the impact the roadway will have on adjacent vacant land that in the future will be developed as recreational land.

The process of minimizing the visual impact of the Red Hill Creek Roadway will be accomplished by using the following guidelines:

1. crossing the Niagara Escarpment in an area that is not of primary visual significance due to an existing road;
2. crossing the Niagara Escarpment in a fashion that is sensitive to the scenic quality of the area;
3. route selection that considers the visual impact of the highway from surrounding land uses;
4. depressing roadway in suitable locations to minimize visual impact;
5. retaining natural vegetation wherever possible to buffer roadway;
6. construct berms along roadway corridor where appropriate to hide views of the roadway;
7. introduce new vegetation to buffer roadway.

TABLE 4

ASSESSMENT OF OPEN SPACE

Section	Type of Open Space	Acres	*Acres used by Roadway	*Acres after Roadway
1. Top of escarpment to Greenhill abutting neighbourhoods: east - Red Hill west - Huntington & Upper King's Forest	golf course	180	0	180
	existing recreation areas	25	3	22
	potential active recreation	0	0	0
	potential passive recreation	230	33	197
2. Greenhill to King Street abutting neighbourhoods: east - Red Hill west - Rosedale	existing recreation areas	23	0	23
	potential active recreation	30	9	21
	potential passive recreation	51	21	30
3. King Street to Queenston abutting neighbourhoods: east - Corman west - Glenview East	existing recreation areas	10	3	7
	potential active recreation	20	17	3
	potential passive recreation	35	23	12
4. Queenston to Barton abutting neighbourhoods: east - Kentley west - McQueston East and West	existing recreation areas	18	3	15
	potential active recreation	18	9	9
	potential passive recreation	40	21	19
5. Barton to C.N.R. tracks abutting neighbourhoods: east - Nashdale west - McQueston East	potential passive recreation	24	15	9
6. The entire valley	golf course	180	0	180
	existing recreation area	76	9	67
	potential active recreation	68	35	33
	potential passive recreation	380	113	267

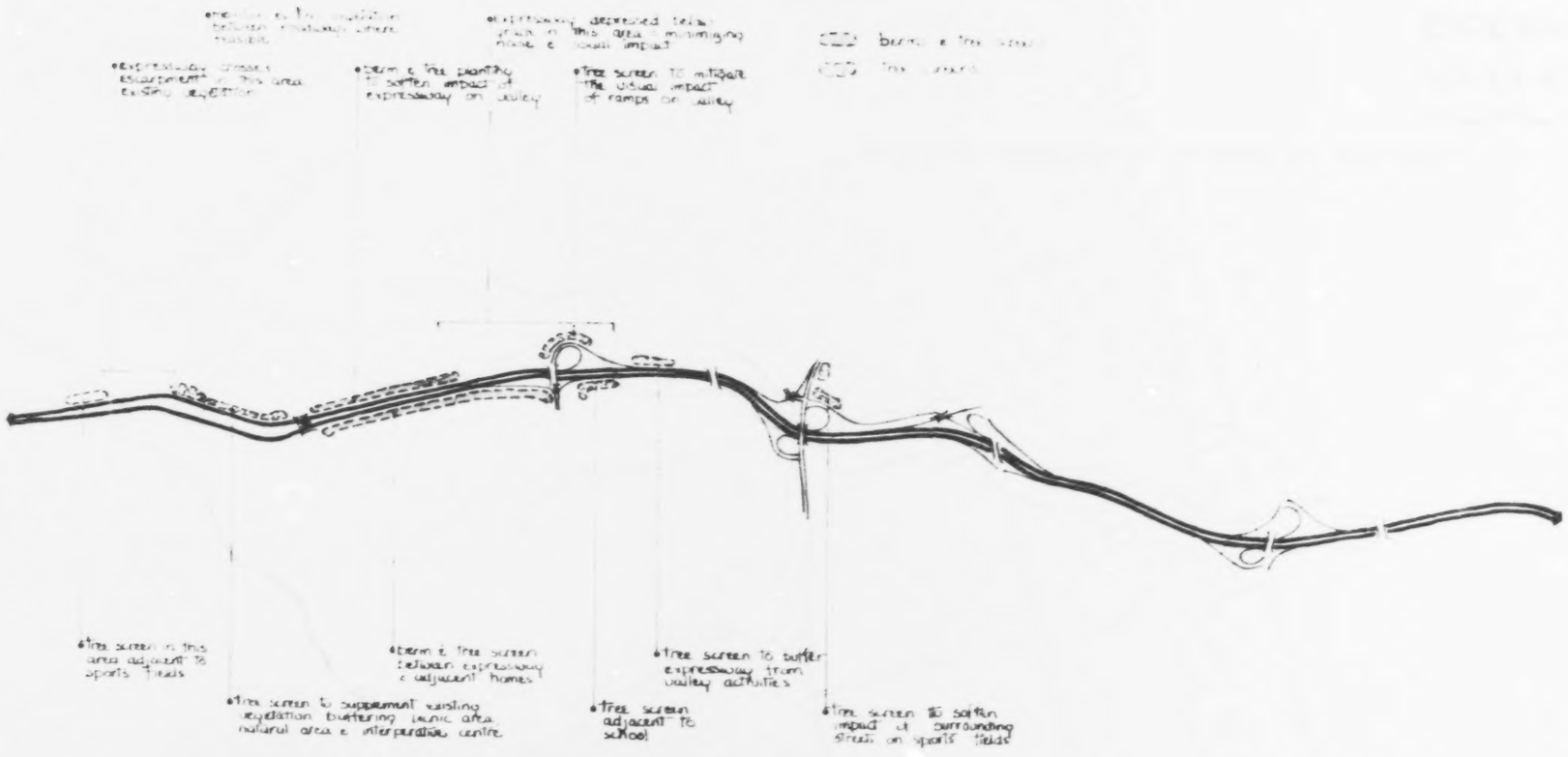
Total Area of Valley (Niagara Escarpment to C.N.R. Tracks) 704 Acres

Total Area of Roadway 157 Acres

* Acreages all approximate figures.

EXPRESSWAY MITIGATION

map 11


•existing deciduous trees retained in this area minimizing noise & visual impact
•existing vegetation enhancement in this area existing vegetation
•berm & tree planting to soften impact of expressway on valley
•tree screen to mitigate the visual impact of ramps on valley
•tree screen in this area adjacent to sports fields
•berm & tree screen between expressway & adjacent homes
•tree screen to buffer expressway from valley activities
•tree screen to supplement existing vegetation buffering picnic area natural area & interpretive centre
•tree screen adjacent to school
•tree screen to soften impact of surrounding streets on sports fields

These design features will be used as guidelines to mitigate the visual impact of the Red Hill Creek roadway. The following terrain units will be used used in the description the mitigation of the visual impact.

1. Flat plateau area (above escarpment)
2. Escarpment crossing
3. Outwash area (escarpment to King Street)
4. Valley area (King Street to Brampton)

Map 11, Expressway Mitigation, identifies areas of concern of visual intrusion and mitigation.

Flat plateau area: The east-west portion of the roadway will cross this area. The visual impact will be minimized by depressing the roadway approximately 8 feet below grade and constructing berms on both sides of the roadway. Trees will be planted on both sides of the road.

The escarpment crossing: The escarpment is to be crossed at a location already disturbed by the Mount Albion Road cut, where the actual face of the escarpment is only approximately 75 feet high compared to some of the surrounding areas where it is between 200 and 250 feet in height. As a result, a minimum of scarring will occur and this will be mitigated to a certain extent by the surrounding vegetation.

The outwash area: The roadway right-of-way follows the east side of the valley area well above the valley floor until it reaches the T.H. & B. Railway embankment. The visual significance of the roadway

Figure 5.

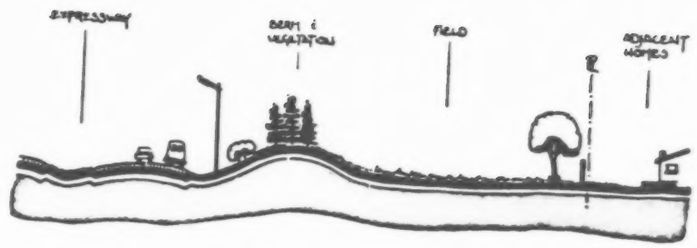
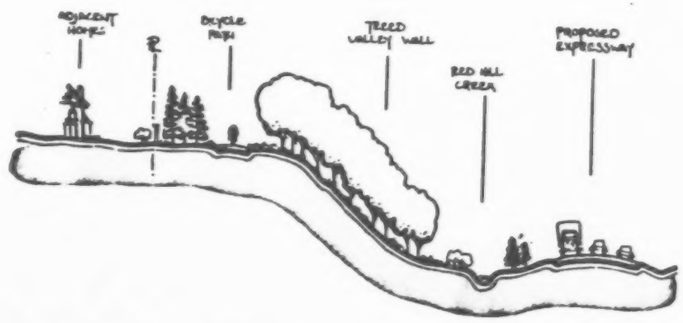


Figure 6.



will be mitigated by the existing vegetation at the southern end of this route, this will be supplemented by more tree planting. As the roadway gets closer to grade, berms and tree planting will act as a buffer. See Figure 5. In the Greenhill area the roadway will sink below grade, thus, limiting the visual impact.

The valley area: The roadway in this area will follow the valley bottom. As the valley is well below the surrounding land the highway will have limited visual impact. See Figure 6. The surrounding areas having views into the valley (most views will be filtered by the existing vegetation on the valley side slopes) will be subject to tree planting programs to buffer the view of the roadway.

POOR

QUALITY

ORIGINAL